CHALMERS

16th International Symposium on Space Terahertz Technology



Conference Proceedings ISSTT 2005 May 2-4 Göteborg, Sweden





Proceedings of the 16th International Symposium on Space Terahertz Technology

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Cover

Vinga lighthouse, on the island Vinga in the archipelago of Göteborg, Sweden. Photograph by Kjell Holmner.

The beautiful island of Vinga is known as the last outpost before the open waters of the North Sea. Vinga is only on hour and 15 minutes by boat from Göteborg. The famous Swedish poet Evert Taube grew up here, where his father was the lighthouse keeper. There are fine sites for swimming on the island and it is said that the sun almost always shines on Vinga!

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INTRODUCTION

The sixteenth International Symposium on Space Terahertz Technology (ISSTT) was held at Chalmers, Göteborg, Sweden on May 2-4, 2005. This was the first time the ISSTT meeting was held outside the USA. More than 147 delegates from Europe, USA and Asia attended and 147 scientific papers were presented. The program was divided into 11 oral sessions with 63 papers (5 invited) and one poster session with 83 papers.

The meeting was organised by research groups at the microwave electronics laboratory, MC2, and GARD, Onsala space observatory. The latest results on terahertz technologies for space applications were presented, such as sensitive superconducting electronics (HEB/SIS), detectors, sources and systems. New applications of terahertz technology, e.g. for biotechnology, were also presented by Peter Siegel, Caltech (invited talk). Furthermore, we offered lab tours through MC2 on the Monday, a conference dinner at Älvsborgs fästning on the Tuesday, and finally a trip to Onsala space observatory after closing the scientific meeting on the Wednesday afternoon.

The geographical distribution of the paper contribution at the meeting is shown below:

	Papers	Participants
USA, Canada		32
Europe, Middle East		104
Asia and Pacific		11
Total:		147

The symposium was sponsored by the Swedish Research Council (VR), the IEEE Sweden Section, the Swedish Space Corporation, Ericsson AB, COMSOL AB and our exhibitors: Omnisys Instruments AB, SAAB Ericsson Space AB, and the European Southern Observatory (ESO). I would like to thank these organisations for their support. I would also like to thank everyone who helped to make the Symposium a success: the international steering committee for advice and for reviewing abstracts; the local organising committee; Eva Hellberg and Peter Jönsson for all WEB support; Monica Hansen-Torvaldsson, Catharina Forssén, and Ingrid Collin for help with registrations and payments; Chalmers president Jan-Eric Sundgren and Erik Kollberg for opening the meeting; staff at Chalmers Conference Centre; the session chairs; and everyone who attended or contributed a presentation. Also an additional thanks to Mattias Ingvarson for putting this proceedings together.

Jan Stake

The next symposium (ISSTT 2006) will be held in Paris, May 10-12, 2006.

ORGANISING STAFF

Organising committee

Jan StakeHarald MerkelVictor BelitskyTherese BergSergey CherednichenkoVessen VasilevArne Øistein OlsenPourya KhosropanahArezoo EmadiJosip VukusicErik KollbergEva HellbergCatharina ForssénRaquel Rodriguez-MonjeMathias Fredrixon

International steering committee

The organisers would like to thank the international steering committee for helping to review all submitted abstracts and papers:

Tom Crowe Qing Hu Peter Siegel Edward Tong Jack East Karl Jacobs Heribert Eisele Teun Klapwijk Christopher Walker Stafford Withington Brian Ellison Antony Kerr Neal Erickson Imran Mehdi Wolfgang Wild Gregory Gol'tsman Antti Räisänen Sigfrid Yngvesson

CONFERENCE PROGRAMME

Sunday, May 1, 2005

18.00 - 21.00 Registration in Chalmers kårhus

Monday, May 2, 2005

- 07.00 -12.00 Registration in Chalmers kårhus
- 08.30 09.20 Session 1 : Introduction (Erik Kollberg)
- 09.20 10.30 Session 2 : Sources I (Antti Räisänen)
- 10.30 Coffee
- 11.00 12.30 Session 3 : SIS I (Viktor Belitsky)
- 12.30 Lunch
- 14.00 15.40 Session 4 : Systems I (Heribert Eisele)
- 15.40 Coffee
- 16.00 19.00 Session 5 : Poster Session (H. Merkel, J. Stake, J. Vukusic)
- 19.00 21.00 Lab tour, MC2

Tuesday, May 3, 2005

- 08.30 10.25 Session 6 : Sources II (Jan Stake)
- 10.25 Coffee
- 11.00 12.30 Session 7 : HEB I (Sigfrid Yngvesson)
- 12.30 Lunch
- 13.30 15.25 Session 8 : SIS II (Netty Honingh)
- 15.25 Coffee
- 15.40 -17.10 Session 9 : HEB II (Heinz-Wilhelm Huebers)
- 18.30 23.00 Boat trip and dinner at Alvsborgs fästning

Wednesday, May 4, 2005

- 08.30 09.45 Session 10 : Schottky receivers (Tony Kerr)
- 09.45 Coffee
- 10.00 11.45 Session 11 : Components (Alexandre Karpov)
- 12.15 Lunch
- 13.00 15.00 Session 12 : New detectors (Eyal Gerecht)
- 15.00 15.30 Session 13 : Closing session (Jan Stake)
- 16.00-19.00 Exhibit tour to Onsala Space Observatory

CONFERENCE PHOTOS 1







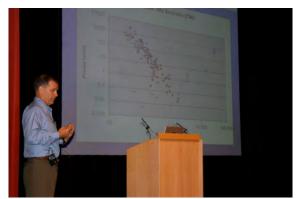








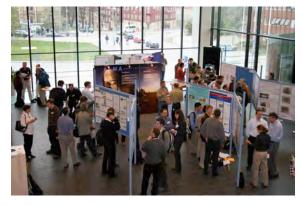




CONFERENCE PHOTOS 2





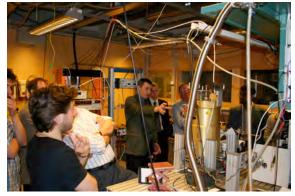












CONFERENCE PHOTOS 3

















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